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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,401	08/19/2003	Raymond G. Freuler	POWRD-015C	3992

7590 06/06/2005

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EXAMINER

NORDMEYER, PATRICIA L

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/643,401	Applicant(s) FREULER ET AL.	
	Examiner Patricia L. Nordmeyer	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/24/03, 11/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

2e

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 16 – 23 in the reply filed on May 2, 2005 is acknowledged. The traversal is on the ground(s) that no additional effort would be required and thus no drain would occur with a search and examination of all the claims in one application. This is found persuasive and all of the claims will be examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
3. Claims 16 – 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “generally planar substrate” in claims 16, 20, 24 and 27 is unclear, which render the claims vague and indefinite. It is unclear from the specification what is meant by generally planar. Are there allowed to be irregularities in the surface of the substrate, or is it suppose to be a perfectly flat surface?

Claims 17 – 19, 21 – 23, 25, 26 and 28 are also rejected under 35 U.S.C. 112 2nd paragraph due to their dependency on the above rejected claims.

Clarification/correction is required.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 16 – 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 8 and 12 of U.S. Patent No. 6,616,999 to Freuler et al. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Freuler et al. discloses a thermal interface positionable at a juncture between an electronic component and a heat sink for facilitating heat transfer from said electronic component to said heat sink comprising a generally planar substrate consisting essentially of a single layer having first and second surfaces and defining a first continuous peripheral edge, said peripheral edge having a portion thereof extending beyond the juncture between said electronic component and said heat sink, a first layer of heat conductive composition formed substantially about said first surface of said substrate and a second layer of a heat conductive composition formed substantially about said second surface of said substrate, said first and second layer further being formed upon said portion of said substrate extending beyond said juncture between said

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electronic component and said heat sink and formulated to have a melting point of approximately 51 – 60 °C and a layer of adhesive formed upon a portion of a respective one of said layer of heat conductive material, said adhesive layer being localized upon said portion of said peripheral edge defined by generally planar substrate extending beyond said juncture between said electronic component and said heat sink (Column 8, line 48 to Column 9, line10) as in claims 16, 20 and 24 – 26. With regard to claims 17, 18, 21, 22, 27 and 28, the substrate comprises a thermally conductive metal foil selected from the group consisting of copper gold, silver and aluminum (Column 10, lines 1 – 5). A peel-away protective layer formed to said adhesive, wherein peeling away said peel-away layer exposes said layer of adhesive on said substrate so as to facilitate adhesive bonding of said thermal interface to said heat sink (Column 10, lines 18 – 23) as in claims 19 and 23.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 16 – 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Freuler et al. (USPN 5,912,805).

Freuler et al. disclose providing a thermal interface for facilitating heat transfer between an electronic component and a heat sink (Col. 7, line 30) comprising a planar substrate (Col. 7, line 31) having first and second surfaces (Col. 7, lines 31-32) wherein the peripheral edge of the substrate extends substantially beyond the surface between the electronic component and the heat sink (Col. 8, lines 4-8) and the peripheral edge is coated with an adhesive (Col. 5, lines 43-50) that has a peel-away protective layer made of silicone-coated paper (Col. 8, lines 33-45) to compressively engage the electronic component to the heat sink (Col. 5, line 24). Freuler et al. also teach heat conductive compositions formed upon the first and second surfaces of a substrate (Col. 1, lines 28-35 and Col. 7, line 41- Col. 8, line 3) and a substrate comprising a thermally conductive metal foil (Col. 8, lines 14-16) chosen from copper, gold, silver or aluminum (Col. 8, lines 17-22), which has a melting point of approximately 51 degrees C or higher (Col. 8, lines 23-26).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

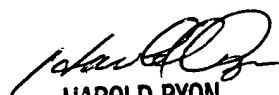
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer
Examiner
Art Unit 1772

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pln


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

5/24/05